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RETURN OF CURED TUBERCULAR PATIENTS

FROM

HIGH ALTITUDES.

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FROM THE TRANSACTIONS.

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ON THE RETURN OF CURED TUBERCULAR PATIENTS FROM HIGH ALTITUDES.

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CAN patients in whom tubercular disease of the lungs has been arrested in high altitudes return with safety to low ones?

The brief remarks which I have to offer upon this topic were written with the hope of exciting a discussion which would bring out the rich experience of our Western members with cases of arrested pulmonary disease. It is a common saying in the East, "If you go to Colorado you must live there forever after; you can never return East."

Whence did this idea arise? Because many patients have undoubtedly suffered relapse after coming down from high altitudes. Why did they suffer relapse? (1) Some because they returned too soon, and (2) others because, though practically cured, they returned to exactly the same conditions which produced the disease in the beginning.

When a patient convalesces in a high altitude, after failure to do so in a low one, it is because he has experienced certain conditions (whether of dryness, low atmospheric pressure, or what, it is not my purpose now to discuss) which he had not encountered before.

It ought to be self-evident in this, as in any curative process, that its conditions should not be rudely interfered with before certain definite results are obtained.

Nature has begun her process of restoration on certain lines, and the attempt at readjustment to others, even though they may be in themselves equally good, must be dangerous.

"It is not safe to swap horses while crossing the stream."

In speaking of those who return from a mountain climate too soon, I will not stop to more than mention the innumerable host of patients who flit from place to place, without ever being adjusted to the conditions of any one. They come here, stay a few weeks, find that they cough more (per-

haps this may be the beginning of a beneficent change in the lung), get discouraged, and go on to some other climate without taking professional advice, or, at any rate, without heeding it, if sought.

These patients need that staying power which is so necessary for recovery from such a formidable disease, innumerable instances of which will occur to the minds of every one here present. It is that which keeps them courageous through the almost inevitable set-backs which occur in the progress of the disease. It is that which all experienced practitioners recognize at once in a patient as one of their most powerful allies, and the absence of which weighs heavily on the adverse side in the consideration of prognosis.

There are others, however, who stay in the mountain climate long enough to experience marked benefit from it, who tear themselves away too soon, before the disease is sufficiently quiescent to bear transplantation. The shock may be hardly less than that to a delicate plant moved from one soil to another at an improper season.

It is difficult to bring such a matter as this down to an exact numerical basis ; but it may be said, as a rule, I think, that all patients who have experienced an arrest of pulmonary tuberculosis in high altitudes should stay in them at least a year after the arrest may be fairly said to have been established.

What patients in this case can be allowed properly to go to their homes, and what ones should be kept from them, will be considered shortly ; but, in the first place, let us for a moment consider what may be called an arrest of the disease. In general one may say that an arrest of the disease has taken place when all morbid general symptoms have been absent for a period of from six months to a year, with the following exceptions : A little morning cough with expectoration may remain for an indefinite time after the arrest of disease. The weight may be somewhat less than at a lower altitude, the pulse may be more easily accelerated, and, of course, some dyspnœa on exertion may remain, in proportion to the lung-area originally involved. Locally, on physical exploration, one will continue to obtain some abnormal signs, except in cases in which the amount of disease was originally very slight. These are

usually signs of contracted, partially consolidated lung-tissue, with some rather sparse crumpling rales, but not an extensive area of moist bubbling. With these exceptions the patient is well ; feels well, and asks to go home. Whether he should be allowed to go back to a low altitude depends in great measure on how far he will put himself into the same conditions under which the disease originated, and how far he may be able to modify them.

In regions where tubercular disease is prevalent every one is constantly exposed to its reception. That most persons escape it is due to their predominant power of resistance. When any factor which helps to make up this power of resistance fails, or when the infecting agent is suddenly increased in quantity, then the disease is more liable to become implanted. Now, in some cases it will be not difficult to determine what change took place in a patient or his surroundings to produce the disease, and if this can be determined with tolerable certainty, and is found to be such as can be avoided in the future, then we can with more confidence allow him to return.

Those who show a strong hereditary tendency to the disease—in other words, who afford a favorable soil for its growth, no matter how unusual the exciting cause may have been—had better be encouraged to remain in the climate where arrest has taken place, except for such occasional temporary changes as their general condition may seem to indicate. Those having this receptive soil are so extremely liable to fall prey to the disease that any influence which has proved itself beneficent had better be maintained. On the other hand, if the patient has no inherent tendency to this form of disease in himself, but has been the victim, as it were, of external causes, he may be allowed to try a return under different conditions.

CHANGES BENEFICIAL.

What conditions, under which the patient lived when the disease was contracted, can be altered for the better on his return ? In the first place, his residence may have been dark, damp, and on a clayey soil ; this may be changed to one on a dry, sandy soil, and one filled with sunshine. The profession to-day fully endorses the claims of Drs. Bowditch and

Buchanan in regard to the effect of soil-moisture in the production of tuberculosis.

In the next place, his occupation may perhaps be radically changed from an in-door one, necessitating the rebreathing of a vitiated air, laden not only with carbonic acid, but perhaps with other noxious agents, to one which will keep him out-doors the greater part of the day.

Again, if pains were taken to trace back the beginning of cases of tuberculosis we would be often surprised to find how many of them could be reasonably attributed to improper or insufficient diet. Man has not yet been inclined to bestow that care on himself in regard to the quality and quantity of his food, which he has long since been accustomed to bestow on the lower animals. In the case of the animal, man recognizes the economical necessity of bringing him to the highest possible degree of strength. In his own case he tries, by cunning in various ways, to diminish the amount of physical work required of him rather than to give himself the strength to endure it. He shows a total disregard, and usually ignorance of the simplest rules of dietetic hygiene. Sometimes he is aroused to the importance of the subject only to commit himself to some very unsuitable and injurious bill of fare—*e.g.*, an exclusively vegetable diet after a lifelong of meat-eating.

I cannot help thinking that a much greater influence in the production of disease is exerted by the food with which we furnish our bodies than we are accustomed to admit, and that much more is yet to be accomplished for our welfare by its proper management. At present the usual preparation of food is so bad that, after we have found out what nutriment a patient's condition requires, it is well-nigh impossible to secure it to him. I am happy to say, however, that this subject is at present beginning to attract serious attention, and that something like suitable schools of instruction are being established. I hope to see before long schools for cooks established in every large city, where women shall be thoroughly trained in all branches of cooking, and furnished with a diploma when competent. There should be established, in connection with such a school, a bureau of registration, where the subsequent history of each graduate shall be kept on file, available for reference, as in the case of nurses. While I

believe that such a systematic method of instruction can be successfully employed in the case of other servants, I think that the best cooking will be taught in schools devoted exclusively to that, rather than in the schools for general housework which are now being established. I have dwelt upon this point because I believe there are few families whose average health is not below what it would be with properly prepared food. So, then, by special effort in improving his diet, a decided change may be made for the better in the prospect of continued health of a patient with arrested tuberculosis.

There are also some cases in which mental depression from surrounding conditions is such as to render it fairly liable to the accusation of causing the disease. This may be capable of radical relief.

There may have been some accidental change in the lung, which will make it more liable to infection, which with care we may hope to avoid in the future. This applies, among other things, to inflammatory conditions, to which some are exceedingly prone, while they seldom occur in others. A good illustration of permanent arrest of tubercular disease, perhaps coming under this class of cases, is afforded by a gentleman who consulted me in July, 1876. He was then 29 years of age. His mother had died at 33 of pulmonary tuberculosis, when the patient was two years old. He had never had serious sickness, and was not prone to inflammatory conditions of the air-passages. A year before he had strained his chest, and since then it had not felt quite right. He attributed his symptoms, for which he consulted me, to exposure as a member of a military company which took part at the opening of the Centennial Exhibition the previous May.

He complained of cough, loss of flesh and strength, dyspnœa on exertion, and night-sweats. His pulse was 84. There were signs of partial consolidation and moist rales in the upper lobe of the right lung. I find no record of the temperature in my notes. I advised him to spend the remainder of the summer at Block Island, and if his cough still remained in the autumn, to go to Colorado. I saw him August 29th. He had gained flesh and strength, and the night-sweats had ceased. His pulse was 66. His cough was

worse in the morning, but less in the day. The signs in the chest were less marked, but still evident. I advised Colorado. September 7th the night-sweating returned. He left some time during this month for this State, and I did not see him again till the 19th of the following May, when he presented himself in my office. He returned, I presume, without advice. He stated that after reaching Colorado there was not much change till November 1st; then he began to improve, and cough and expectoration ceased entirely by the 12th of No vember. He stayed mostly in Denver up to that time, and afterward camped out, and was on the prairies most of the time. He took very little whiskey, but 5 to 15 glases of beer daily. He started for home on business April 23d. He began to cough as soon as he got east of Kansas, but was not conscious of taking cold. He had gained 22 pounds in weight. He now had morning cough and expectoration, and some cough after meals. His pulse was 78, and temperature 99 degrees. On examination of the chest there was marked improvement, the only morbid signs being prolonged expiration at the right apex, with slight dulness; and on deep inspiration a few clicking rales in right front from top to nipple. Nothing like moist sounds were heard anywhere. I advised him to go back to Colorado, and to stay there. This he did, and remained till March, 1881 (about four years), with only one visit East during that time. Since 1881 he has remained in Boston. Exactly when his cough and other symptoms again disappeared I do not know; but since his return he has never had cough or any other suggestion of pulmonary disease. There was admitted to have been a pretty free admixture of Eastern whiskey with Colorado air in the therapeutics of the latter sojourn in the West. Just what the determining factor in this tubercular invasion was, whether the strain, or the acute cold from exposure, or both combined, is not perfectly clear; but inasmuch as the patient's life in general has since been much the same as before the attack, it seems proper to consider the cause as something exceptional. He came home and remained there on his own responsibility. Considering his hereditary tendency, I should certainly have advised him to stay away from the Atlantic seaboard if I had been consulted.

Finally, the determining factor in the production of the disease may have been exposure to such a quantity of infecting material as could be avoided in the future, if the patient returned home. For instance, such a condition as was reported recently in a counting-house in Paris, where a very large proportion of the clerks had become tubercular, and expectorated upon wooden floors, the sweeping of which was completed in the morning, after the clerks began to arrive.

I have introduced this topic because I feel sure that patients cured in Colorado need not all remain there ; and because I feel that it is very important that they should take competent advice in regard to any desired change, and also that the physician, in case he should allow any to return, should make well-directed effort to diminish the liability to a recurrence of their disease.